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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,398	10/03/2001	Joachim Hagenauer	112740-218	8986

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EXAMINER	
ROBERTS, BRIAN S	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/868,398	HAGENAUER ET AL.	
	Examiner	Art Unit	
	Brian Roberts	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-21* is/are rejected.

7)☒ Claim(s) *10-12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/18/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's preliminary amendment filed 10/03/2001 is acknowledged.

Claims 1-9 have been cancelled.

Claims 13-21 have been examined.

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Claims 13-21 should be numbered 10-18.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claims 13 and 20

The term "large" in claims 13 and 20 is a relative terms which renders the claims indefinite. The term "large" is not defined by the claims, the specification does not

provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear what constitutes a large number of possible code modes.

- In reference to claims 13, 18, and 20

The term "standard manner" in claims 13, 18, and 20 is a relative terms which renders the claims indefinite. The term "standard manner" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear what constitutes a standard manner of channel coding the first portion of the data bits.

- In reference to claim 16

The term "length of influence" in claim 16 is a relative term which renders the claim indefinite. The term " length of influence " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear what is a “length of influence”.

- In reference to claims 14-19 and 21

Claims 14-19 and 21 are rejected because they depend on a rejected parent claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 13-21, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Bruhn (US 6256487).

- In reference to claim 13

Bruhn teaches a method of channel and source coding and decoding data structured in frames that includes:

- Dynamically selecting a code mode from a number of possible code modes (column 2 lines 10-54)
- Speech or source coding the data in accordance with the selected code mode (column 2 lines 10-54)
- A mode indicator to inform the receiver of the selected coding technique (column 3 lines 22-45)
- Channel encoding the data payload and the mode indicator independently of the selected source coding mode (column 3 lines 22-45)

- In reference to claim 14

Bruhn teaches selecting the source code mode based "upon the radio propagation characteristics of radio communication channels, and the loading of the system". (column 2 lines 48-54)

- In reference to claim 15

Bruhn teaches a method of "a mode request which informs a transmitter of a particular codec mode desired by a receiver for subsequently transmitted information blocks or frames and/or channel measurement information". (column 4 lines 1-6) (column 6 lines 42-63)

- In reference to claim 16, 17, 18

Bruhn teaches a method of using convolution coding for the channel coding of the data prior to modulation (column 2 lines 26-41) and where redundancy is added to the data frame so that the first portion of the channel-coded data bits act as overhead to allow the decoding of the mode indicator according to the selected coding mode. (column 3 lines 34-55)

- In reference to claim 19

In Figure 4, Bruhn teaches a method where the mode indicator in the frame is determined by the mode information likelihood processor (107) and delivered to the

channel decoder (109) to recover the information via the known redundant bits and the known channel coding. (column 7 line 54-65) (column 10 lines 8-27)

- In reference to claim 20

In Figure 3, Bruhn teaches a system and method of channel and source coding and decoding data structured in frames that includes:

- Dynamically selecting a code mode from a number of possible code modes for coding a frame (column 2 lines 10-54)
- Speech or source coding the data in the frame in accordance with the selected code mode (column 2 lines 10-54)
- A mode indicator in the frame to inform the receiver of the selected coding technique (column 3 lines 22-45)
- A mode control processor (48) for channel encoding the data payload and the mode indicator independently of the selected source coding mode (column 3 lines 22-45)

- In reference to claim 21

In Figure 4, Bruhn teaches a system and method that includes a processor (107) where redundancy is added to the data frame so that the first portion of the channel-coded data bits act as overhead to allow the decoding of the mode indicator according to the selected coding mode. (column 3 lines 34-55)

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bruhn (US 6452941) teaches a method of transmitting a mode indicator with the payload data to inform the receiver of the particular coding scheme.
- Furuya (US 5577087) teaches a variable modulation communication method and system according to the transmission quality.
- Ward et al. (US 5701294) teaches a system and method for dynamically adapting the user bit rate to achieve optimum voice quality.
- Frodigh et al. (US 6456627) teaches a method for communicating information in a communication system that supports multiple modulation schemes.
- Haavisto (US 6208715) teaches a method and system of speech and channel coding.
- Siira (US 5878062) teaches a data transfer method and cellular radio system that includes speech and channel coding as well as a mixed mode bit.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BSR
06/03/2005

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